

Greyhound Bridge



Originally a railway viaduct, Greyhound Bridge was unusually converted for vehicle use by the addition of a concrete deck in 1972.

Location
Lancaster, UK

Client
Lancashire County Council

Completed
2018

Structure
200m long road bridge over the River Lune



The Problem Identified

The bridge joints had deteriorated leading to water ingress and chloride induced corrosion of the congested steel reinforcement within the transverse beams of the superstructure. As corrosion is expansive in nature, this resulted in significant cracking and spalling of the concrete cover.



The Solution Developed

Hydro-demolition was used to remove the chloride contaminated concrete from around the joints. The concrete was re-cast incorporating RebaGuard galvanic anodes, which were fixed directly to the steel reinforcement, and new joints were installed. Should any water breach the new joints and soak the adjacent concrete, the sacrificial RebaGuard anodes will corrode preferentially and prevent rebar corrosion initiation. RebaGuard anodes with a high zinc mass were selected to reflect the high steel density and provide long term protection to the joint section.



The Benefits Provided

The risk of corrosion related deterioration around the transverse joints has been mitigated. The RebaGuard system is fast and easy to install. The anodes are self powered and self regulating, thus minimising any future maintenance requirements and associated life costs.



Spalling transverse beams to soffit under deck joints



RebaGuard anodes in position ahead of concrete pour

CPT Products Used



RebaGuard



ISO 9001
Cert No. 10159